

Analysis of project stakeholders with the help of RASCI Matrix (on the example of Project Management processes applied at Business Division Electronics at Hella KGaA Hueck&Co)

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Keywords: stakeholder management, responsibility assignment matrix, project manager, project core team member

Abstract: Stakeholder management is one of the most significant aspects on the way to successful project management. The process of stakeholder management differs from one project to another as every project creates unique outputs. According to **PMI (2013)**, a project is: “a temporary endeavour undertaken to create a unique product, service, or result”. **[1]** All the projects have limited duration, therefore specific start and end dates. Another project constrain includes limited budget. A clearly defined scope used to be the third feature of the project. Thus, in order to deliver the product or service in time, within budget and scope constraints, satisfying quality requirements, a lot of participants or stakeholders are involved.

This article is providing an analysis of some features of it at Hella KGaA Hueck & Co. This is a global, independent, family-owned company with more than 27,000 employees at 70 locations in more than 30 countries. The Hella KGaA Hueck & Co develops and manufactures lighting and electronic components and systems for the automotive industry and also has one of the largest trade organizations for automotive parts, accessories, diagnosis and services throughout Europe.

There is a misunderstanding between the Project Manager and Core Team members concerning determination of their roles and responsibilities inside the projects at Business Division Electronics. The Business Division Electronics has sales of € 1.9 billion. The products for this division are being developed at 13 development sites and produced at 11 production sites.

The Hella KGaA Hueck & Co. is a project-oriented organization which has a continuously developing procedure of project management. Hence, there are plenty of tools which are aimed at analysis and satisfaction of stakeholder's needs. According to general project management practices, it is important to design a proper responsibility assignment matrix to avoid conflicts between the project participants.

This article contains an improved RASCI Matrix, which should be aimed at solving the arisen problem. It has two versions and contains all the information which doesn't exist in the project organization tools at Hella KGaA Hueck & Co. nowadays. It has the original structure, provided in many literature references. All the Project Core Team members are clearly determined there. The description of the RASCI Matrix can be used as a guide for the Project Managers, who will be using this tool.

1. Introduction

The process of stakeholder management differs from one project to another as every project creates unique outputs. Stakeholder management is an important issue in project management as a project can be seen as a temporary coalition of stakeholders having to create something together. **[2]** Hence, it is common knowledge that different kinds of conflicts can appear because of various reasons, e.g. misunderstandings of roles and responsibilities, differences in prioritizing tasks, lack of communication, depending tasks, distrust, interpersonal or intercultural issues, etc. In order to avoid appearance of conflicts because of unclear determination of roles and responsibilities, project manager can use different tools and instruments. One of them is Responsibility Assignment Matrix, also known as RACI Matrix.

This article is providing an example of using a kind of RACI Matrix to solve the problem of misunderstandings between the Project Manager and Core Team members at Business Division Electronics in Hella KGaA Hueck & Co.

2. Responsibility Assignment Matrix in projects

RAM, also known as a RACI-matrix, is used to illustrate the connections between work packages or activities and project team members. [3]

Different references give different definitions to such kind of matrixes. For instance, in PMBOK, RACI is one of the forms of Responsibility Assignment Matrix. Moreover, RAMs differ from each other depending on the project scale. For large projects it is reasonable to develop a high-level RAM. It can define what a project team group or unit is responsible for within each component of the WBS. [3] For other projects, the PMI recommends to make a matrix which is designated roles, responsibilities, and levels of authority only for specific activities.

On the figure below there is an example of RACI-Matrix. It is typically created with a vertical axis of tasks or deliverables, and a horizontal axis of roles.

RACI Chart	Person				
Activity	Ann	Ben	Carlos	Dina	Ed
Define	A	R	I	I	I
Design	I	A	R	C	C
Develop	I	A	R	C	C
Test	A	I	I	R	I

R = Responsible A = Accountable C = Consult I = Inform

Table 1. Responsibility Assignment Matrix using a RACI Format. [3]

Such matrixes are developed on the early stages of the project. Usually, the project team jointly completes the responsibility matrix by filling in the accountability levels of each role. [4] For example, a team decides to add a role of Software Engineer. After that all the tasks inside the matrix should be reviewed in order to fill a new role. At the end of this process, the Software Engineer should be accomplished to more than one role and have different levels of responsibilities inside the project. This process continues for all the roles on the project until the matrix is complete and at the end, the project team together signs and approves the responsibility matrix. [4] The tasks can be taken from Work Breakdown Structure and deliverables from a Product Breakdown Structure. Organizational chart used to be a source for different roles.

The responsibility assignment matrix used to be a very powerful tool which is important through all the processes in project stakeholder management. During identifying stakeholders, the project manager is developing the roles inside the project and connecting them with tasks. After that, all the team members should review their roles and responsibilities and agree or disagree with project manager's decision. Hence, during this stage discussions and conversations are possible in order to create a clear responsibility assignment matrix. Although, these processes could also be a part of planning stakeholder management. If the matrix satisfies the project manager's vision and stakeholder's expectations, then it will be an appropriate tool during managing and controlling stakeholder engagement. Here it has power to be a kind of guide for the project manager.

The responsibility matrix does not contain the actual status of the project and therefore does not require regular weekly reporting. It could be included in an automated scheduling system that the project is already using, and this would allow the simple updating of the matrix fields when adding new activities to the project, maintaining the ongoing currency of the responsibility matrix with minimum effort.

3. Implementation of RASCI Matrix to projects at Hella KGaA Hueck & Co.

The Hella KGaA Hueck & Co. defines five major roles inside the project. They are Group Manager, Project Sponsor, Project Manager, Project Core Team Member, Project Extended Team Member. The last two roles are used to be performed not by one person, but by the group of people. The processes of project life-cycle in the company are used to be adapted to the practice that Hella KGaA Hueck & Co. has. On the other hand, because of the continuously developed nature of projects, it is difficult to standardize these processes. Therefore, the problem that rose within some projects at Hella KGaA Hueck & Co. seems to have logical reasons. There is a misunderstanding between the Project Manager and the Core Team Members concerning determination of their roles and responsibilities inside the project. As this difficulty exists in the projects inside Business Division Electronics, the author of this article is focusing the attention on it. In order to solve the problem, it is important to analyse the existing project

organization tool at Hella KGaA Hueck & Co., then introduce a new instrument and provide a detailed description of its advantages, disadvantages and the process of implementation.

Hella KGaA Hueck & Co. already has a responsibility assignment matrix, which is used to structure work of Project Manager by containing a means to clarify tasks, responsibilities, and availability levels within a project. Moreover, its main aim is to ensure a systematic flow of information between all the participants. Here **“D”** stays for **“Decision”**. It means the person who is subscribed to this letter has to make decisions on the basis of recommendations of the person carrying out action. He/she is determining the starting point of the process, its depth and intensity. It is possible that some tasks don't contain this responsibility. On the other hand, it is impossible to order more than one person for this responsibility. Letter **“E”** means **“Execution”**. Participants, who are subscribed to it, are actively involved in the process. They also have to give recommendations to the participants, who have the responsibility of “Decision”. If there is no defined person to make decision, this has to be done by the person, who is acting on the task. In order to achieve the target, he/she should ask other participants for support. In contrast to the first responsibility, here should be always somebody undertaking the actions. In case there are several people actively involved in the task, the decision responsibility should be clearly identified. The third letter here is **“S”**, which suits the meaning **“Support”**. These participants should help those, who are taking actions. There is no limit defining the number of supportive participants. The provision of support also opens up the right to have a say. Thus the person providing support is the first control body of the person carrying out the action, with this control on the basis of a critical partnership. The last responsibility is focusing on participants who have to be **“Informed”**, therefore the letter **“I”** stays in the scheme. People, who are acting during the project, are informing these participants about the project' status and achievement of the important milestones. Different means could be used here depending on the agreement between the participants, e.g. e-mail, phone, fax, etc. Here are also no limits on number of people to be informed.

The DESI-scheme has a very simple structure. The determination of responsibilities is very logical: the connections between them are very clear that is adding value to the process. On the other hand, it has an unusual structure. Instead of dividing the responsibilities between stakeholders, it is illustrating to which kind of action which participant belongs to during performing a certain task. The second advantage of it is that it allows a user to see who exactly is involved in the defined task. Hence, one can make the easier calculation about the human resource costs of it. On the contrary, such kind of scheme does not allow easily seeing responsibilities of every one participant, besides the Manager of Production Line and the Project Manager, who used to have the same responsibilities throughout the whole project. Others cannot understand their input from the first sight. They need to look through each task individually to find out where exactly they are involved and in which form. This structure can possibly influence the raising of such misunderstandings between the Project Manager and the Core Team Members. Moreover, this scheme doesn't define where the Core Team Members should take the responsibility and where the project team member should be in charge. This is the second disadvantage of the DESI-Scheme. Another negative aspect of it is that there is no clear determination of the Core Team members. The scheme provides only one responsibility for the general term “Core Team members” in every task. It is impossible for these participants to find their roles and responsibilities. Moreover, according to the DESI-scheme, the Core Team members have only to be informed through the whole project life-cycle. This has to be the main reason of the appeared problem.

Taking in account this information and summarizing the general project management experience, the author of this research suggests using the RASCI Matrix.

Analyzing the present situation in some projects at Business Division Electronics and bearing in mind different kinds of responsibility assignment matrices, the following responsibilities for the RASCI Matrix were proposed:

Responsible “R” Its meaning is very close to the original one provided in many theoretical resources. It is the person who performs an activity or does the work. It is alike the meaning of “Execution” responsibility in the DESI-scheme. The difference is that it doesn't mean the person should give advices to the upper management team members. On the other hand, he/she is being supported and can ask for a consultation from other participants.

Approve “A” It is a person who is playing the crucial role in the decision-making process. Compared to the DESI-scheme, it has the same meaning as “Decision” responsibility. Only one person can be subscribed to approve the task. His/her role here includes also the output after completing the task. So he/she has a right to give a start to the next activity when the previous is being delivered successfully.

Support (like administrative) “S” These participants are performing the tasks together with person, responsible for their completion, but more in the administrative area. This role suits to the model Project Core Team Member and his Project Team Member. It means, for instance, if the Core Teamer – Test

Engineering (CT-TE) is responsible for the task, then his Project Team of Test Engineering (TE) is playing the supporting role.

Consulted “C” These participants need the feedback to contribute to the activity. The DESI-scheme doesn't contain such a responsibility. In the RASCI Matrix, these members used to have also the role of “Informed”, but this is not happening in all the tasks.

Informed “I” The person, who needs to know about the decision. This responsibility also exists in the DESI-scheme.

The next point to be described here is devoted to the structure of the RASCI Matrix. The author suggests two versions of it: the full or detailed version and short version. Both of them have the original structure like in most theoretical resources. It means, the activities are named on the left side of the table and are situated vertically. Participants could be found on the upper side of the table in the horizontal way.

4. Results and Conclusion

In order to solve the problem of misunderstandings between the Project Manager and the Core Team members concerning determination of their roles and responsibilities inside the project, the author conducted an analysis of literature references and based on its results and Hella KGaA Hueck & Co. experience, the appropriate project instrument was designed.

RASCI Matrix, also known as a responsibility assignment matrix, is used to illustrate the connections between tasks, sub tasks and the project team members. It was designed taken in account the special features of projects at Business Division Electronics at Hella KGaA Hueck & Co. Therefore, it has two versions. Moreover, it contains all the information which doesn't exist in the project organization tools at Hella KGaA Hueck & Co. It has the original structure, provided in many literature references. All the Project Core Team members are clearly determined there, so it helps to solve the problem of misunderstandings between them and the Project Manager.

The description of the RASCI Matrix given above should be used as a guide for the Project Managers, who will be using this instrument. There is a need to implement the matrix as soon as possible in some certain projects in order to avoid escalation of conflicts. This instrument is designed according to the existing version Product Engineering Processes. But it will not lose its urgency even with appearing of new processes, as there are a lot of projects which will be using the present version of it during next years. Moreover, this matrix is easy to correct due to the actual needs of the company.

As this topic embraces a broad aspect of project organization, there is a room to research it in future. First of all, it is important to get the feedback on the new matrix from the Project Managers. Secondly, there is a need to make deep research on stakeholder management in terms of appearing new processes. The possible questions here are:

- How the roles are developed inside the projects?
- What is the management perception of roles inside the projects?
- How is it possible to define the roles in the project, applicable for the new processes?

Answering these question can help to find the solution for broader aspects in context of project management in general, e.g. what are the perspectives from implementation of defined tools and techniques for the future of project management.

5. References

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